

Title (en)
Fluid transducer.

Title (de)
Wandler für Flüssigkeiten.

Title (fr)
Transducteur pour liquides.

Publication
EP 0282251 A2 19880914 (EN)

Application
EP 88301957 A 19880307

Priority
GB 8705757 A 19870311

Abstract (en)
A transducer for measuring a parameter of a fluid, such as density or viscosity, comprises two generally parallel tines extending from a common yoke, forming a tuning fork adapted to be immersed in the fluid. The tines are excited to vibrate resonantly and in anti-phase by one or more piezo-electric exciting elements, which are housed in one or more cavities within the tines or the yoke. The vibrations are sensed by one or more similarly-housed piezo-electric sensing elements. The tines are shaped to enhance their sensitivity to the parameter to be measured: for example they are provided with re-entrant surfaces to enhance density sensitivity, or elongated in the direction in which they vibrate to enhance viscosity sensitivity.

IPC 1-7
G01N 9/00; **G01N 11/16**

IPC 8 full level
G01L 9/00 (2006.01); **G01N 9/00** (2006.01); **G01N 11/16** (2006.01)

CPC (source: EP US)
G01N 9/002 (2013.01 - EP US); **G01N 11/16** (2013.01 - EP US); **G01N 2009/006** (2013.01 - EP US)

Cited by
WO9918431A1; CN104094098A; US7158897B2; US6873916B2; US5670709A; EP2650668A1; RU169441U1; CN102884403A; GB2236591A; GB2236591B; EP1698880A1; NO338484B1; ITTO20120091A1; CN105527192A; NL1010308C2; RU169442U1; CN109164253A; GB2432001B; CN100408997C; CN109752280A; GB2289762A; GB2289762B; US8136385B2; US2014287958A1; US7317989B2; US10156585B2; US8367426B2; US9719904B2; WO0173383A1; WO0022412A1; WO0004370A1; WO2013118038A1; WO2011018498A1; WO2013153224A1; US6389891B1; US8689614B2; US8220067B2; US10473636B2; US8845968B2; US9034264B2; US7222671B2; US7874199B2; US7958772B2; US11397146B2; US7272525B2; US7225081B2; US9423287B2; US11360012B2; US7162918B2; US6907785B1; US9726665B2; WO2011079999A3; WO2019120768A1; WO2006094694A1; WO9516897A3; US6938470B2; US6336353B2; US6393895B1; US7194902B1; US6904786B2; US6957565B2; US7073370B2; US6494079B1; WO0167068A3; WO2004086020A3; WO2007073837A3; WO2004036191A1; WO9414047A1; WO2005103674A3; EP2045594A1

Designated contracting state (EPC)
AT BE CH DE FR IT LI NL SE

DOCDB simple family (publication)
EP 0282251 A2 19880914; **EP 0282251 A3 19890222**; **EP 0282251 B1 19930217**; **EP 0282251 B2 20001213**; AT E85848 T1 19930315; DE 3878473 D1 19930325; DE 3878473 T2 19930617; DE 3878473 T3 20010613; GB 2202944 A 19881005; GB 2202944 B 19910717; GB 8705757 D0 19870415; GB 8805371 D0 19880407; JP 2730903 B2 19980325; JP S63308528 A 19881215; US 4922745 A 19900508

DOCDB simple family (application)
EP 88301957 A 19880307; AT 88301957 T 19880307; DE 3878473 T 19880307; GB 8705757 A 19870311; GB 8805371 A 19880307; JP 5811088 A 19880311; US 16625488 A 19880310